

FORM PTO-1390 (REV 12-29-99) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER TPP:649-US
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLN. NO. (IF KNOWN, SEE 37 CFR 1.5) 09/646993
INTERNATIONAL APPLN. NO. PCT/GB99/00932	INTERNATIONAL FILING DATE 24 March 1999	PRIORITY DATE CLAIMED 26 March 1998
TITLE OF INVENTION : TRUSSING POULTRY		
APPLICANT(S) FOR DO/EO/US BUNN, Rex et al.		

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information.

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau)
 - b. ☒ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (UNSIGNED)
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☐ Other items or information:

U.S. APPLN. NO. (if known, see 37 CFR 1.5) 09/646993		INTERNATIONAL APPLN. NO. PCT/GB99/00932		ATTORNEY'S DOCKET NUMBER TPP:649-US	
17. <input checked="" type="checkbox"/> The following fees are submitted:				CALCULATIONS PTO USE ONLY	
BASIC NATIONAL FEE (37 CFR 1.492(a)(1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO. \$925.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO . . . \$840.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO . . . \$690.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$670.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1)-(4) \$ 96.00					
ENTER APPROPRIATE BASIC FEE AMOUNT =				\$ 840.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	8 - 20 =	0	X \$18.00	\$ 0.00	
Independent claims	2 - 3 =	0	X \$78.00	\$ 0.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$260.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$ 840.00	
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28)				\$	
SUBTOTAL =				\$ 840.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$ 840.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$	
TOTAL FEES ENCLOSED =				\$ 840.00	
				Amount to be: refunded \$	
				charged \$	


- a. ☒ A check in the amount of \$840.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. in the amount of \$ to cover the above fees.
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 04-1790. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

MICHAEL L. DUNN
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P.O. BOX 10
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DATED: 9-25-2000


 SIGNATURE

MICHAEL L. DUNN
 NAME

25.330
 REGISTRATION NUMBER

PATENT

430 Rec'd PCT/PTO 25 SEP 2000
TPP:649 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

		ATTORNEY DOCKET NUMBER: TPP:649 US
		US APPLN. NO. (IF KNOWN):
INTERNATIONAL APPLN. NO.: PCT/GB99/00932	INTERNATIONAL FILING DATE: 24 March 1999	PRIORITY DATES CLAIMED: 26 March 1998
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APPLICANT(S) FOR DO/EO/US: BUNN, Rex et al.		

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Please amend the above application as follows:

In the Claims

Please amend Claim 3 as follows:

Claim 3 (Amended)

A truss as claimed in [either preceding claim] Claim 1 wherein the truss is formed from flattened tubular casing.

Respectfully submitted,



Michael L. Dunn
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Dated: September 25, 2000

MLD/csc

TRUSSING POULTRY

The present invention relates to a food-product truss, particularly though not exclusively, for binding the legs of a bird together.

5 It is desirable to truss or bind the legs of a bird or fowl together before cooking. This provides the bird with an attractive appearance, making the bird more appealing to customers at the point of sale.

10 Traditionally, trussing is performed manually using an elastic band or twine to truss the legs to the tail. The process, however, is labourious, time-consuming (because only about 2 or 3 birds can be trussed per minute) and leaves operators vulnerable to repetitive strain injury.

15 A further disadvantage is that materials traditionally used for trussing such as twine and rubber are inedible. Food regulations may also require the product to be additionally labelled to warn consumers of the presence non-edible materials.

20 It is an object of the present invention to provide an edible truss which may be applied by a semi-automated process to bind the legs of a bird together.

25 According to a first aspect of the present invention, there is provided a truss for binding the legs of a bird together, the truss being formed of an edible material and applied above the hocks of the bird such that the hocks are crossed and the legs are held together against the breast of the bird with the hocks in proximal but spaced relation to the tail of the bird.

30 The truss is preferably formed from an edible composite material comprising one or more of the following materials: collagen, cellulose and alginate.

Preferably, the truss is formed of a material which is chicken-skin coloured.

35 In one embodiment, the truss is formed of flattened collagen (sausage) casing which is slit to form films or ribbons, and which may thereafter be twisted. The slit

casing may simply be folded or plaited to provide a multiple-layer film or ribbon, typically two layers or four layers. Of course, such films or ribbons may also be made by folding collagen or similar flat sheets (as distinct from slit tubular casings).

By way of example the truss may be formed from a film or ribbon comprising 5 parts collagen, 2 parts glycerol, 2 parts water and 1 part cellulose. Conveniently such a film or ribbon is preferably twisted to provide between 75 and 110 twists per metre. Alternatively the truss may be formed from a film or ribbon comprising 3 parts collagen, 2 parts glycerol, 2 parts water and 1 part cellulose and which is preferably twisted to provide between 15 and 50 twists per metre.

Advantageously, the truss is maintained in position and in close contact throughout its length with the moist surface of the bird. This prevents the truss from becoming dry and/or brittle during cooking. A basting oil or lubricant (e.g., sunflower oil) may be applied to the truss prior to tying and cooking. Conveniently, the truss is formed of a material which, on cooking, becomes crisp, turns a golden colour and absorbs the full flavour of the cooked bird.

The truss may be applied as a single loop but is preferably applied as a double loop. Advantageously, the truss is knotted as an overhand knot positioned between the hocks of the bird.

The truss of the present invention provides the bird with a symmetrical appearance, making the bird attractive to customers at the point of sale. The legs of the bird are held securely together by applying the truss above the hocks. The truss also gives the bird a more natural conformation as is seen in a chef's presentation and ensures that the legs are held in a position close to the keel of the bird. This minimises the risk of "tenting" i.e. the unsightly appearance of taut skin between the breast and thigh, leading to skin splitting.

In the chef's presentation the bird presents in a natural supine posture, with wings tucked in the usual way.

There is no significant asymmetry in the legs or body, as is commonly seen with the use of elastic or side-insertion (stab and tuck) trussing. In the latter case, legs are frequently skewed or splayed, leading to asymmetry in the body and a more variable, inferior merchandising appearance. In the latter case also, where the elastic is passed around the body, (and often the wings and legs as well) the bird is invariably contorted and foreshortened, with consequent loss of natural conformation and consistency in presentation.

By positioning the legs close to the breast of the bird, the breast of the bird is provided with a plump and high appearance. The close proximity of the legs to the breast also ensures that the breast meat remains moist after cooking. These advantages are achieved without including the tail in the truss.

According to a second aspect of the present invention there is provided a method of trussing the legs of a bird together to form a food product, the method comprising the steps of:

positioning the legs of the bird close against the breast of the bird,

arranging the hocks of the bird in a crossed configuration,

applying a truss formed of an edible material above the hocks of the bird such that the hocks are held together against the breast of the bird and in proximal but spaced relation to the tail of the bird.

Preferably, the method further comprises the step of tying the truss with an overhand knot positioned between the hocks of the bird.

Once trussed, the birds may be pumped and/or cartonised. During cartonisation, it is advantageous to ensure that rigor mortis is achieved with the legs of the birds against the breast. Thus, the birds are preferably

arranged with their legs downwards, with adjacent birds supporting each other during transit.

The method of the present invention may be used to truss the legs of a bird tightly together, allowing the bird to be loaded into an oven or combi-steamer by automatic means. For example, the birds may be positioned in an oven by an epigastric vent without fear of the truss becoming detached from the bird.

These and other aspects of the present invention will now be described by way of example with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a food-product truss in accordance with a preferred embodiment of the present invention;

Figure 2 is an enlarged view taken from a different angle of the region labelled A of Figure 1;

Figure 3 is a perspective view of an operator applying the truss of Figure 1 by a semi-automatic device; and

Figure 4 is a view of a detail of the Figure 3 device.

Reference is first made to Figures 1 and 2 which depict a food-product truss 10 applied above the hocks 12 of a chicken 14. The truss 10 is applied as a single or double loop around a region above the hocks 12 and is secured by an overhand knot 16.

The truss 10 is maintained throughout its length in close contact with the moist surface of the chicken 14. This prevents the truss 10 from becoming dry and brittle during cooking.

The hocks 12 are positioned in a crossed configuration, and are centrally located a small distance above the tail 18 of the bird. Thus, the upper legs 20 of the chicken 14 are held firmly against the chicken's breast 22, providing the breast 22 with a high and plump appearance. The close contact between the legs 20 and breast 22 of the chicken 14 also prevents the chicken meat from drying-out during cooking.

Thus trussed, the chicken 14 has a symmetrical

appearance, making the bird 14 more attractive to customers at the point of sale.

Reference is now made to Figure 3 of the drawings which depicts an operator applying the truss of Figure 1 to a chicken 14 using a trussing machine 100 which enables about 10 to 15 birds per minute to be processed.

The trussing machine 100 comprises a tying deck 110 and a tying or binding head 111 access to which is guarded by guard 113 having an orifice 112 which is adapted to receive the lower leg portions or hocks of a chicken. When the legs of the chicken are positioned within the orifice 112 accordingly, a truss is applied automatically as a double loop around a region above the hocks and secured by an overhand knot (not shown).

To apply the truss, a chicken 14 is positioned on the tying deck 110 with the upper legs held closely to the breast and one hock of the chicken crossed beneath the other.

Once the truss is applied, the chicken 14 is removed from the orifice 112 and pumped and cartonised, as required. The birds are preferably cartonised such that the legs are maintained in close proximity to the breast and are then set by rigor.

To assist in this operation a guide 116 shown in Figure 4 is secured to the deck 110 and functions as a stop to limit penetration of the bird into the machine 100 and at the same time holds the crossed hocks in the crossed position whilst the single or double truss loop(s) is applied by the binding head 111. The guide 116 is formed of a main member 117 which is secured at its base 117A by bolts 118 to the deck 110. The exact position of member 117 relative to the orifice 112 is adjustable by the provision of slotted holes in the member 117. The member 117 is plate-like standing on edge and on either side elongate members 120A and 120B are located being secured by transverse bolts 121, 122. Bolts 121, 122 pass through slotted holes in member 117 enabling members 120A, 120B to

be set at an angle to the base 117A of member 117. Each member 120A, 120B in turn carries a respective stop element 123A, 123B which is of L-shaped cross-section and which is adjustable towards and away from the orifice 112.

5 The guide 116 is arranged to receive the crossed hocks such that one hock end lies on either side of member 117 and below members 120A, 120B and in abutment with elements 123A, 123B.

10 The guide 116 is adjustable to accommodate birds of different sizes but it will be understood that normally only one size at a time is trussed.

Certain characteristics of the truss will now be described in further detail with reference to the following examples.

15 Example 1

In this example, eighty number 12 chickens were trussed in accordance with the preferred embodiment of the present invention. Once trussed, the chickens were pumped according to standard supermarket specifications. The truss
20 ensured that the chicken legs were bound securely together: only one leg became detached during pumping.

Example 2

In this Example, twenty of the birds of Example 1 were lifted by their legs and loaded into an oven for roasting.
25 The trusses were resistant to damage: all the trusses remained intact during handling.

The birds were placed in the oven for a 60 minute cook cycle. A core temperature of above 86°C was achieved.

Once cooked the birds had a crisp, golden appearance.

30 Example 3

The appearance of the birds of Example 2 were graded using a method based on a scale of 1 to 3. Grade 1 chickens were found to be most attractive to consumers, and Grade 3 chickens, were found to be the least attractive. The scale
35 was derived from the six parameters listed below.

(I) How close are the thighs or legs to the breast?

(II) How plump and high does the breast appear?

(III) How close are the legs to the tail?

(IV) Is there any tenting (i.e. unsightly taut skin between the breast and leg, leading to skin splitting)?

(V) Are the hocks crossed?

5 (VI) Is the plug visible?

Grade 1 chickens had (I) thighs which were held tightly to the breast, (II) a high plump breast, (III) legs which were held close to the tail, (IV) no tenting or splitting, (V) crossed hocks and (VI) no sign of the plug.

10 Grade 2 chickens had (I) thighs spaced slightly apart from the breast, (II) a moderate plump breast, (III) legs which were not held closely to the tail, (IV) some tenting but no splitting, (V) hocks which were adjacent but not crossed, and (VI) an invisible or partially visible plug.

15 Grade 3 chickens had (I) thighs splayed apart, and/or (II) a flat breast, (III) legs askew and positioned significantly apart from the tail, (IV) pronounced tenting and/or skin splitting, (V) hocks which were not touching, and/or (VI) a clearly visible and protruding plug.

20 The grades which were awarded to the chickens of Example 2 are listed in Table 1 below.

Table 1

Grade 1 (good)	Grade 2 (average)	Grade 3 (poor)
19	1	0

25

Comparative Example 1

Eight birds were trussed by traditional methods, using an elastic band to bind the legs of the bird to the tail. These birds were subjected to the same handling and cooking conditions as Example 3 above. The cooked birds were graded using the grading method of Example 3 and the results are shown in the Table 2 below.

30

Table 2

Grade 1 (good)	Grade 2 (average)	Grade 3 (poor)
3	4	1

35

A comparison of the results of Tables 1 and 2 shows

how chickens trussed by the present invention are more attractive to consumers than chickens which are trussed by traditional methods.

Example 4

5 In this example, twenty birds were trussed in accordance with the preferred embodiment of the present invention. These birds were subjected to extensive jostling and handling before being loaded into a CONVOTHERM oven for roasting. The trusses showed resistance to damage during
10 the handling and loading procedure.

The birds were cooked using a 70 minute cook cycle, and a core temperature of approximately 85.2°C was achieved.

15 Nineteen out of the twenty trusses were resistant to the high oven temperatures and remained intact throughout the cooking process.

The birds were graded using the method of Example 3 above. The results are shown in Table 3 below.

Table 3

20

Grade 1 (good)	Grade 2 (average)	Grade 3 (poor)
18	1	1

Comparative Example 2

25 Twenty-seven chickens were trussed by traditional methods using an elastic band to bind the legs of the bird to the tail. These chickens were subjected to identical handling and cooking procedures as the chickens of Example 4 above. The chickens were graded in accordance with the method of Example 3 and the results are shown in Table 4
30 below.

Table 4

Grade 1 (good)	Grade 2 (average)	Grade 3 (poor)
11	11	5

35 A comparison of Tables 3 and 4 confirms that chickens trussed by the present invention have better display characteristics and are more attractive to consumers than

chickens which are trussed by traditional methods.

Various modifications may be made to the above described embodiment without departing from the scope of invention. For example, the truss 10 may be applied to any
5 type of bird irrespective of size and configuration.

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ART 34.2

CLAIMS

1. A food product comprising a bird having its legs bound together by a truss, the truss being applied above the hocks of the bird such that the hocks are crossed and the legs are held together against the breast of the bird with the hocks in proximal but spaced relation to the tail of the bird, the truss being formed of edible collagen material and being maintained in close contact throughout its length with the moist surface of the bird.
2. A food product as claimed in claim 1, wherein the truss is formed from an edible material comprising collagen and cellulose.
3. A food product as claimed in either preceding claim wherein the truss is formed from flattened tubular casing.
4. A food product as claimed in claim 3, wherein the flattened tubular casing is slit to form films or ribbons which are subsequently twisted, folded or plaited.
5. A food product as claimed in claim 4, wherein the film or ribbon is twisted to provide between 15 and 110 twists per metre.
6. A food product as claimed in claim 5, wherein the twisted film or ribbon has between 15 and 50 twists per metre and a composition comprising 3 parts collagen, 2 parts glycerol, 2 parts water and 1 part cellulose.

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11

7. A food product as claimed in claim 5, wherein the twisted film or ribbon has between 75 and 110 twists per metre and a composition comprising 5 parts collagen, 2 parts glycerol, 2 parts water and 1 part cellulose.

5

8. A method of trussing the legs of a bird together to form a food product, the method comprising the steps of:

10 positioning the legs of the bird close against the breast of the bird,

arranging the hocks of the bird in a crossed configuration,

15 applying a truss formed of an edible collagen material above the hocks of the bird such that the hocks are held together against the breast of the bird and in proximal but spaced relation to the tail of the bird and the truss is maintained in close contact throughout its length with the moist surface of the bird.

20

09/646995

1/2

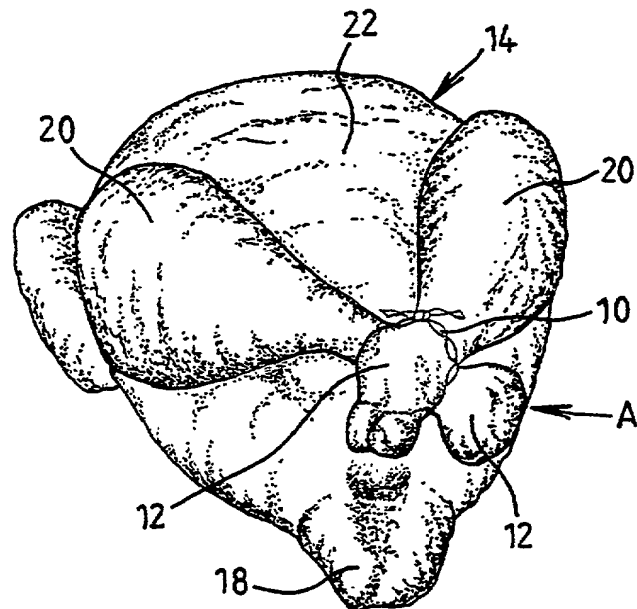


Fig. 1

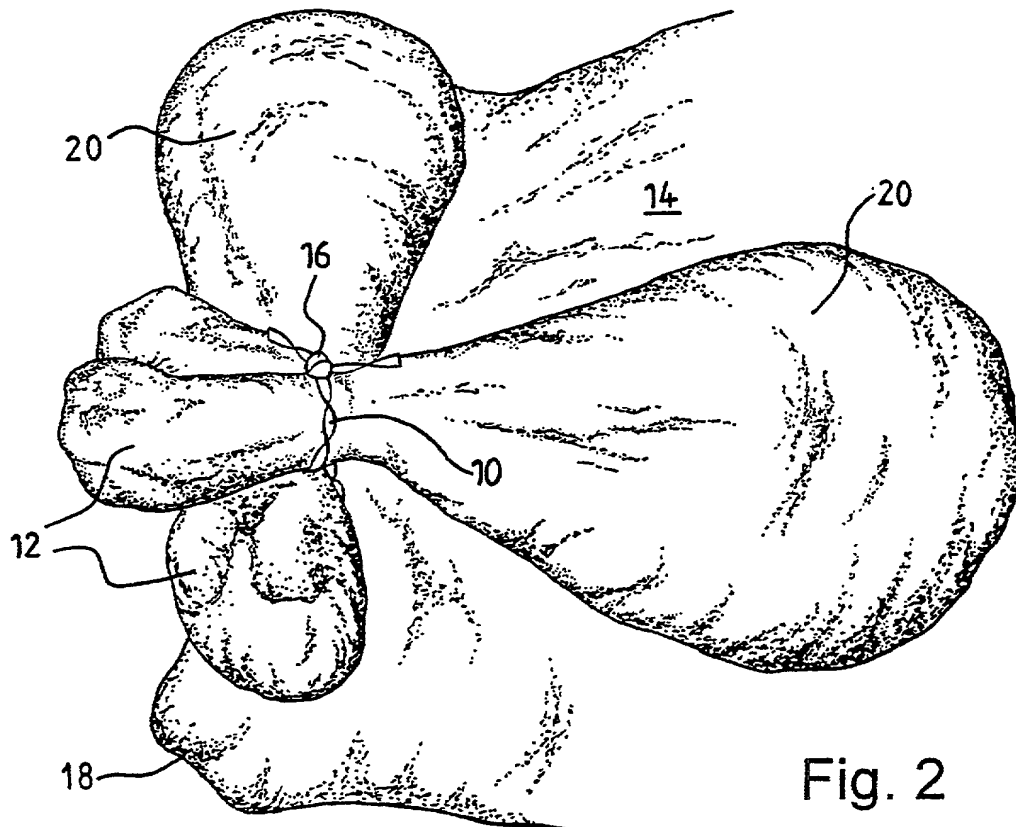


Fig. 2

2/2

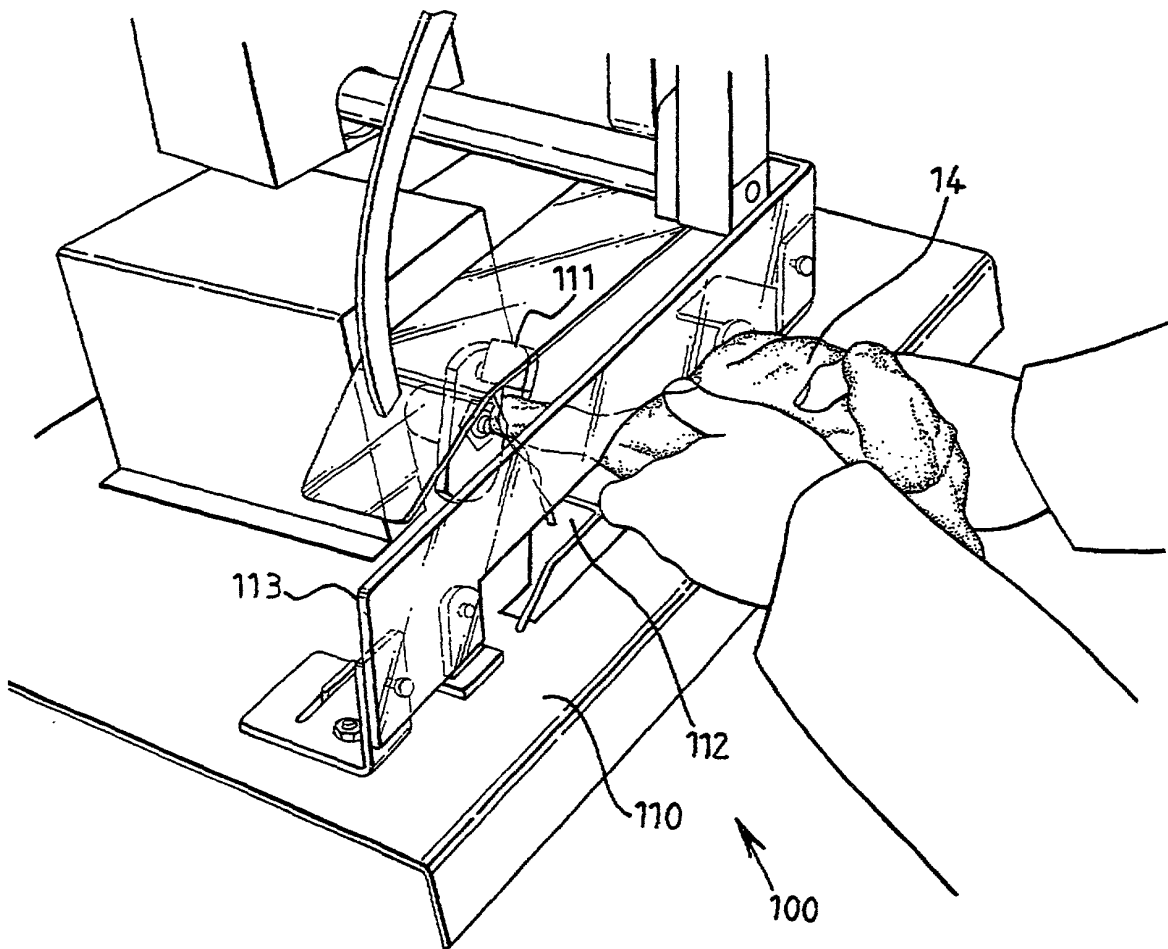


Fig. 3

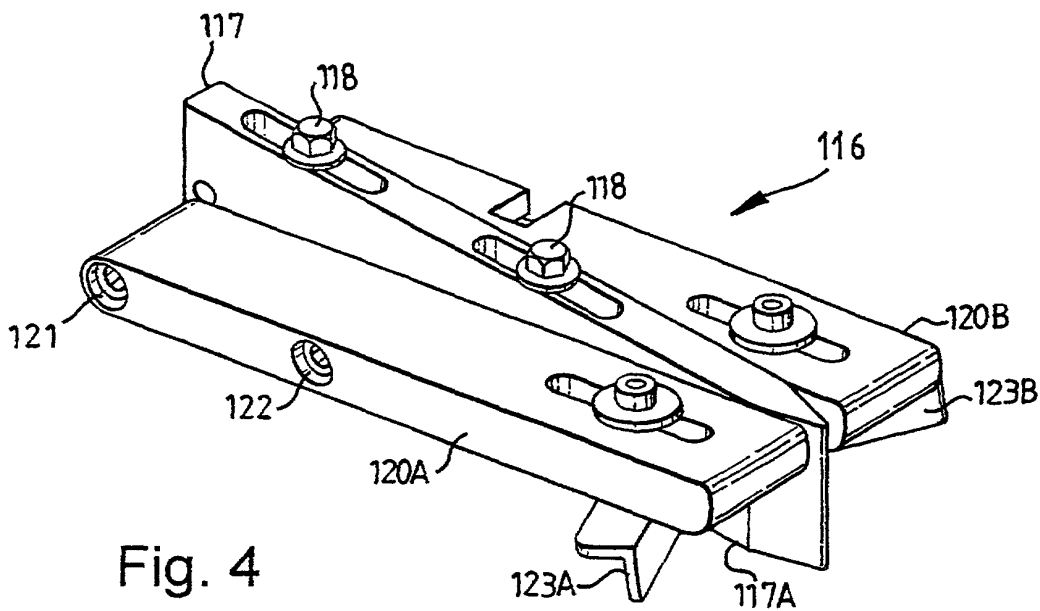


Fig. 4

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input type="checkbox"/> Declaration Submitted with Initial Filing OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	TPP:649 US
	First Named Inventor	BUNN, Rex
	COMPLETE IF KNOWN	
	Application Number	09/646,993
	Filing Date	09/25/2000
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that

My residence, post office address, and citizenship are as stated below next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TRUSSING POULTRY

the specification of which (Title of the Invention)

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 03/24/1999 as United States Application Number or PCT International Application

Number PCT/GB99/00932 and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
9806359.7	Great Britain	03/26/1998	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)	
		<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 3]

Burden Hour Statement This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

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DECLARATION – Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and

Trademark Office connected therewith: ☐ Customer Number OR

☒ Registered practitioner(s) name/registration number listed below

Name	Registration Number	Name	Registration Number
DUNN, MICHAEL L. ELLIS, HOWARD M.	25,330 25,856		

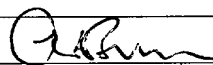
☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to ☐ Customer Number or Bar Code Label OR ☒ Correspondence address below

Name	DUNN & ASSOCIATES				
Address	P.O. BOX 10				
Address					
City	NEWFANE	State	NY	ZIP	14108
Country	U.S.A.	Telephone	716-433-1661	Fax	716-433-1665

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon

Name of Sole or First Inventor: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])				Family Name or Surname			
Rex				Bunn			
Inventor's Signature				Date	13/11/00		
Residence City	Castle Hill	State		Country	AU	Citizenship	NZ
Post Office Address	18 Yandiah Place						
Post Office Address							
City	Castle Hill	State		ZIP	NSW 2154	Country	Australia

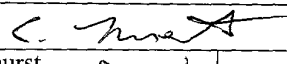
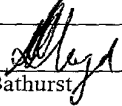
☒ Additional inventors are being named on the One (1) supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box → ☐

PTO/SB/02A (3-97)
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DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet Page 3 of 3
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Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
<u>Alec</u>		<u>Forrest</u>					
Inventor's Signature						Date	<u>15/11/00</u>
Residence City	<u>Bathurst</u>	State		Country	<u>AU</u>	Citizenship	<u>AU</u>
Post Office Address <u>29 Bassett Drive</u>							
Post Office Address							
City	<u>Bathurst</u>	State		ZIP	<u>NSW 2795</u>	Country	<u>Australia</u>
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
<u>Warren</u>		<u>Lloyd</u>					
Inventor's Signature						Date	<u>14/11/00</u>
Residence City	<u>Bathurst</u>	State		Country	<u>AU</u>	Citizenship	<u>AU</u>
Post Office Address <u>6 Park Street</u>							
Post Office Address							
City	<u>Bathurst</u>	State		ZIP	<u>NSW 2795</u>	Country	<u>Australia</u>
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
Inventor's Signature						Date	
Residence City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])		Family Name or Surname					
Inventor's Signature						Date	
Residence City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

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